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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,072	05/13/2005	Tatsuhiko Nakano	0020-5292PUS1	2366
2292	7590	03/09/2007	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			NGUYEN, TRI V	
			ART UNIT	PAPER NUMBER
			1751	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/09/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/09/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/507,072	NAKANO, TATSUHIKO
Examiner	Art Unit	
Tri V. Nguyen	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 12 January 2007.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 7-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 7-11 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/12/07

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Request for Continued Examination***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 12, 2007 has been entered.

### ***Response to Amendment***

2. In the amendment filed on January 12, 2007, claims 7 and 8 have been amended and claims 9-11 have been added. The currently pending claims considered below are Claims 7-11

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, Jr. et al. (US 5,350,423).

Davis, Jr. et al. teaches a processing method for an indigo-dyed fabric (col 3, lines 47-50) comprising the steps of applying zinc nitrate or ammonium nitrate (col 4, lines 48-67) in the form of an aqueous solution (col 6, lines 13-17) and subjecting the resulting fabric to a heating process by drying in a tenter oven at 300<sup>0</sup> F. (col 6, lines 17-19). The immersion step of Davis Jr. et al. is seen as a coating step for both sides of the cloth; therefore, it would have been obvious

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to a skilled artisan in the art of fabric treatment to optimize the quantities to arrive at the Applicant's amounts since Davis Jr. et al. disclose the same process steps and the same ingredients in similar concentrations absent of unexpected results. Davis, Jr. et al. do not explicitly disclose the concentration range of 63 g/L to 200 g/L; however, Davis Jr. et al. disclose a range of 0.5 % to 6.0 % (col 6, lines 49-54). A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium MetalsCorp. of America v. Banner*, 778F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I. In this instant case, the recited 6.0 % or 60 g/L of Davis Jr. et al. is close enough to the Applicant's limitation of 63 g/L. Furthermore, the examiner notes that all disclosures of the prior art, including non-preferred embodiment, must be considered. See *In re Lamberti and Konort*, 192 USPQ 278 (CCPA 1967); *In re Snow* 176 USPQ. 328, 329 (CCPA 1973). The examiner also notes that non-preferred embodiments can be indicative of obviousness, see *Merck & Co. v. Biocraft Laboratories Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1989); *In re Lamberti*, 192 USPQ 278(CCPA 1976); *In re Kohler*, 177 USPQ 399.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, Jr et al. as applied to claim 9 above, and further in view of Buhler (US 4,009,000).

Davis, Jr. et al. teach the process of claim 9 but do not explicitly disclose the methyl cellulose-based thickener. Regarding the thickener, Davis, Jr. et al. disclose the use of a starch in the process (col 6, see table in example 3). In an analogous art of fabric treatment, Buhler discloses the equivalency of starch and methyl cellulose as thickeners in a fabric treatment comprising nitrates (col 2, lines 3-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the starch thickener of Davis, Jr. et al. with

methylcellulose because the substitution of art recognized equivalents as shown by Buhler is within the level of ordinary skill in the art.

***Response to Arguments***

6. Applicant's arguments filed on January 12, 2007 have been fully considered but they are not persuasive.

a. Regarding claim 8, applicants argue that the Davis, Jr. et al. reference does not teach a zinc nitrate concentration close enough to the applicants' limitation (page 6). The examiner respectfully disagrees as the Davis, Jr. et al. reference teach a concentration of 6% or 60 g/L which is close enough to 63.68 g/L. Furthermore, the examiner notes that all disclosures of the prior art, including non-preferred embodiment, must be considered. See *In re Lamberti and Konort*, 192 USPQ 278 (CCPA 1967); *In re Snow* 176 USPQ. 328, 329 (CCPA 1973). The examiner also notes that non-preferred embodiments can be indicative of obviousness, see *Merck & Co. v. Biocraft Laboratories Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1989); *In re Lamberti*, 192 USPQ 278(CCPA 1976); *In re Kohler*, 177 USPQ 399.

b. In response to applicant's argument that prior art reference(s) teach away from examiner's interpretation (page 6), examiner asserts disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. *In re Susi*, 169 USPQ 423, 426 (CCPA 1971). Furthermore, knowledge in the art may have advanced such that results considered incredible at one time are no longer *per se* incredible. *Ex parte Rubin*, 5 USPQ2d 1461, 1462 (BdPatApp&Int 1987). In the instant case, the Davis, Jr. et al. reference teach the same process steps with the same ingredients in similar proportion. Therefore, a skilled

artisan in the fabric treatment art would reasonably expect the same resulting effect to be achieved.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri V. Nguyen whose telephone number is (571) 272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NVT

NVT, PhD  
March 3, 2007

*Lorna M. Nguyen*  
**LORNA M. DOUYEN,  
PRIMARY EXAMINER**